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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/694,813

10/29/2003

Kenji Asuwa

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08/01/2006

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EXAMINER

TRAN, HUAN HUU

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 08/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/694,813 | Applicant(s) ASUWA ET AL. | |
| | Examiner Huan H. Tran | Art Unit 2861 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,9 and 17 is/are rejected.
- 7) ☒ Claim(s) 3,5,6,7,8,10,11,16 and 12-15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10/29/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claims 7, 8, 12, 13, 14, 15 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 4, 9, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazato (JP 2001-002330) in view of Sato (US Patent No. 6798430).

With reference to Fig. 1 and paragraph [0015], Nakazato discloses an electrophotographic apparatus comprising plurality of image forming means (Fig. 1, element 6) each including a photosensitive drum having, on its outer surface, photosensitive layer, charging means for charging photosensitive layer to predetermined potential, an exposure means (A,B,C,D) for exposing the photosensitive layer accordance with image data so as to form a latent image, and a developing means for causing toner to stick to the latent image on the outer photosensitive drum so as form a toner image, the plurality of the image forming means being stacked one upon another along a straight part of an endless intermediate transfer belt (36) which stretched for rotation between plurality of rollers (32,34,42) including a drive roller (32)

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and at least one idle roller (34) , so as to make the photosensitive drums into contact with an outer peripheral surface of the endless belt formed medium belt in order to transfer toner images formed on the plurality of photosensitive drum onto a medium directly or by way of the intermediate transfer belt for forming color image, characterized in that:

the photosensitive drums are arranged in one a vertical direction,

the intermediate transfer belt (36) is located on one side of the row of the photosensitive drums,

the developing means are located on the other side of the row of the photosensitive drums,

recording medium supply means (8) is located below the row of the photosensitive drums, and

recording medium supply path composed of vertical conveying path for conveying a recording medium fed from the recording medium supply means (8) , substantially in parallel with the straight part outside of the developing means.

a fixing means (10) for heating the toner image transferred on the recording medium so as to fix the same on the recording medium is incorporated in the horizontal conveying path downstream of the transfer means.

As to claim 4, it is seen in Fig. 1 that the vertical conveying path incorporate a front opening door for exposing the conveying path.

As to claim 17, it is seen that the space for accommodating at least one of the power source unit and a drive circuit is defined outside of the intermediate transfer belt 36.

Nakazato does not explicitly teach the limitation "a transfer means for transferring toner image from the intermediate transfer belt onto recording medium is located above the row of the photosensitive drums" and that the recording medium supply path composed of vertical conveying path for conveying a recording medium fed from the recording medium supply means, substantially in parallel with the straight part outside of the developing means, a curved part and a horizontal conveying path for conveying the recording medium up to the transfer means in a substantially horizontal direction is provided. Nakazato also does not teach or suggest that the fixing means (10) is incorporated in the horizontal conveying path downstream of the transfer means.

Sato (US Patent No. 6798430) shows that such transfer roller is conventional in the art for transferring toner image from the intermediate transfer belt onto a recording medium. In particular, Sato discloses a transfer roller 63 disposed above the rows of the photosensitive drums. See Fig. 1.

As to claim 9, Sato discloses that the exposure means incorporates an LED light source.

It would have been obvious to one of ordinary skill in the art to provide a transfer roller above the row of photosensitive drums as taught by Sato in the apparatus of Nakazato for transferring toner image from the intermediate transfer belt 36 onto a recording medium. The recording medium supply path composed of vertical conveying path for conveying a recording medium fed from the recording medium supply means (8) , substantially in parallel with the straight part outside of the developing means, a curved part and a horizontal conveying path for conveying the recording medium up to the transfer means in a substantially horizontal direction.

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Allowable Subject Matter

5. Claims 3,5,6,10,11,16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan H. Tran whose telephone number is (571) 272-2261. The examiner can normally be reached on at work on T-F from 6:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vip Patel can be reached on (571) 272-2458. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Huan H. Tran
Primary Examiner
Art Unit 2861

hht
07/21/06